

PATENT SPECIFICATION

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DRAWINGS ATTACHED.

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COMPLETE SPECIFICATION.

Improvements in or relating to Double-Glazing.

I, PETER JOSEPH PATRICK RUSSELL, 14 Molesham Way, Molesey, Surrey, an Irish citizen, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention is concerned with the problem of double-glazing and particularly with a method which can be used successfully by the amateur or "do-it-yourself" man.

Many systems are already known and they are more or less complicated with many different devices for securing the two or more sheets of glass the desired distance apart from each other and fixing the assembled double-glazed unit in place.

According to the present invention the method of double-glazing windows comprises using as the spacing material between the sheets of glass a strip of a flexible plastics or rubber material of rectangular or triangular section which is coated on at least two sides with an adhesive and securing one or both of the sheets of glass to the window frame by a strip of a similar flexible material of triangular section, which is also coated on two of its sides with adhesive.

It can be used to convert an existing window having single glazing into a double-glazed window or it can be used to make up and fix new double-glazed units. It can be used with wooden or metal window frames of various cross-sections.

The strip of flexible material of the invention is preferably made of polyvinyl chloride which is commonly known as PVC. It is either rectangular or triangular in cross-section according to the shape of the surfaces to which it is to be applied. The adhesive used is one which will adhere under pressure to wood, metal, glass, or any other

clean dry surface. For handling and transport the sides which are coated with adhesive are covered with a removable strip of material such as paper, linen or plastic, for instance polythene, which is removed immediately before use.

In use the flexible strip is cut to the required length to fit the window it is desired to double-glaze, the protective strip of material is removed from one of the adhesive-coated surfaces which is then applied to the glass or the frame. The other strip of protective material is then removed and the adhesive surface is applied to the other surface.

Examples of the way in which the strip of adhesive-coated flexible material may be used for double-glazing include the following:

1. As a spacing strip between the two sheets of glass.
2. To secure one or both of the sheets of glass to the window frame, whether the inner surfaces of the latter are at right angles to the glass or are inclined to it at a lesser angle.

In the first example a strip of rectangular section is used having adhesive on two opposite faces. In the second example a strip of triangular section is used. If desired both of the above examples may be used together. For instance a triangular strip may be used to secure the first sheet of glass to the frame; a rectangular strip is then used as a spacer between the two sheets of glass and a third strip of triangular cross-section is used to secure the second sheet of glass to the frame. Probably the most useful application of the invention is, however, to facilitate the addition of a

second sheet of glass to single paned windows already in place.

Being flexible the strips of adhesive-coated material can be marketed in very long lengths rolled onto reels, from which the lengths requested by customers can be cut off with a knife.

In the accompanying diagrammatic drawing Figures 1, 2 and 3 show in section, window frames embodying different forms of the invention.

In each figure the spacing plastic strip is indicated by reference numeral 1, the window frame by 2, the glass by 3 and the putty by 4.

It will be seen that in Figure 1, the plastic strip 1 used to separate two sheets of glass is rectangular in section, while in Figures 2 and 3 it is triangular. The sheets of glass are secured to the frame 2 in Figure 1 by means of plastic strips 4¹ of triangular section.

In Figure 2 a metal frame 2 supports a sheet of glass 3¹ which is held in place by a strip of putty 4 of triangular section. The strip of plastic 1 is also of triangular section and rests on the sloping side of the putty. The second sheet of glass 3¹¹ is secured between the vertical side of the strip 1 and a further strip of the same material 4¹. A thin layer of putty 4 is also placed between the frame and the first sheet of glass 3¹.

In Figure 3 also the plastic strip 1 is triangular in section. It serves to secure one of the glass sheets to the frame 2 and at the same time to space the two panes of glass apart which are adhesively secured to the frame 2 by means of strips of plastic of triangular section 4¹.

In all cases the sides of the plastic strips to be attached to the glass, the putty or the frame are coated with a suitable adhesive.

WHAT I CLAIM IS:—

1. A method of double-glazing windows

which comprises using as the spacing material between the sheets of glass a strip of a flexible plastics or rubber material of rectangular or triangular section which is coated on those sides which make contact with the glass with an adhesive and securing one or both of the sheets of glass to the window frame by a strip of a similar flexible material of triangular section which is also coated on those of its sides which make contact with the frame and glass respectively with an adhesive.

2. A double-glazing unit comprising two sheets of glass spaced apart by a strip of flexible material of rectangular section between them which is firmly attached to both sheets of glass with adhesive and a wooden, plastic or metal surround to which one or both sheets of the glass is or are secured by means of strips of the flexible material of triangular section which have those sides in contact with the glass and frame respectively coated with adhesive.

3. A double glazing unit comprising a wooden, plastic or metal frame to which two sheets of glass are secured by strips of a flexible material of triangular section which have those sides in contact with the glass and frame respectively coated with adhesive and which sheets of glass are spaced apart by a strip of flexible material of triangular section which is firmly attached to one of the sheets of glass and the frame respectively by means of adhesive.

4. Double-glazing units substantially as described with reference to, and as illustrated in Figure 1, Figure 2 or Figure 3 of the accompanying diagrammatic drawings.

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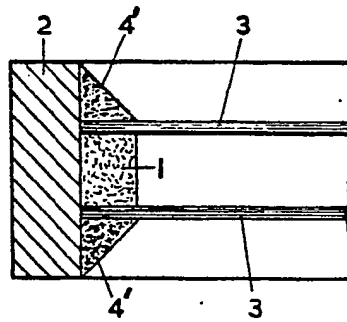


FIG. 1

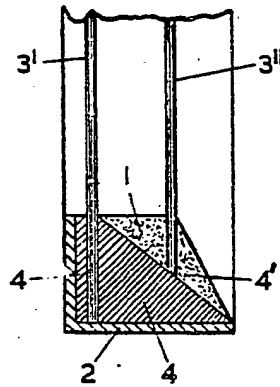


FIG. 2

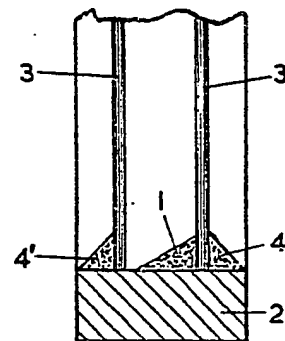


FIG. 3

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